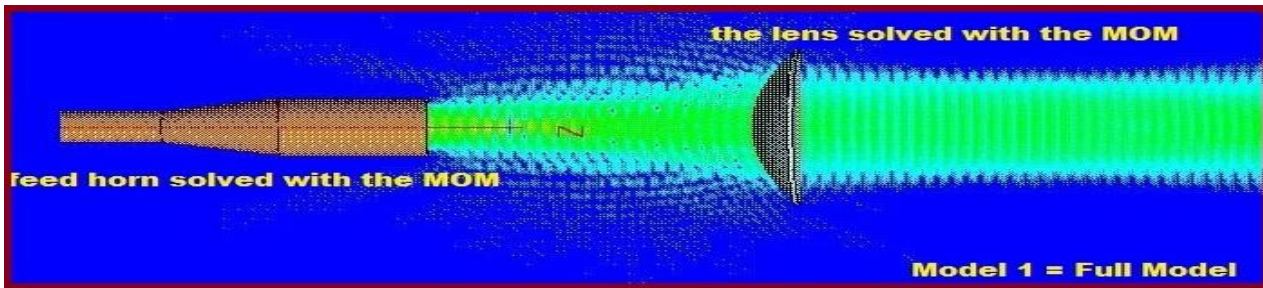


Astronomical instruments dedicated to the study of the Cosmic Microwave Background are in need of optics with very low systematic effects such as aberrations and cross-polarization in an optical configuration.

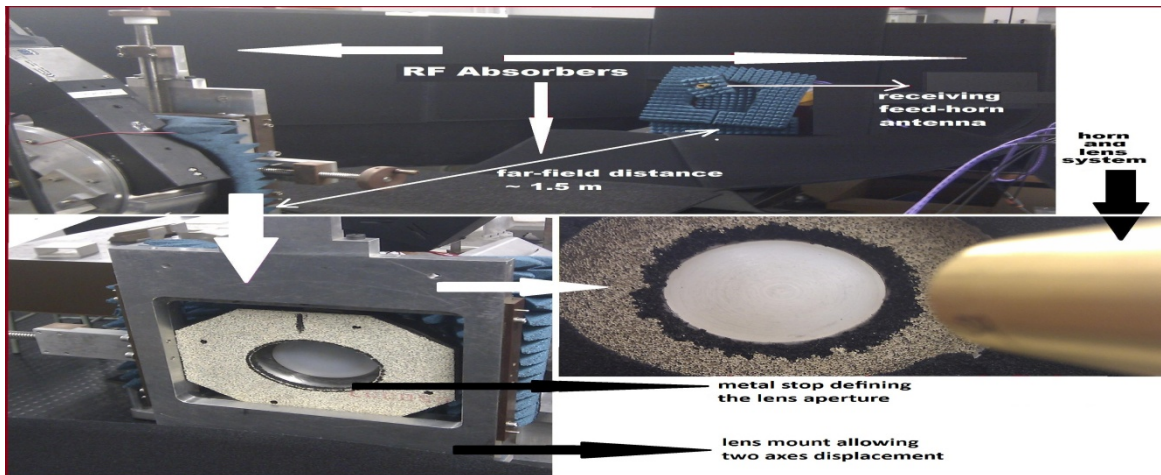
simulations

I use different optical codes such as Method of Moments (MOM), Finite Element Method (FEM) and Geometrical Optics (GO).



measurements

RF measurements of the lens antennas coupled to the corrugated feed horn antenna are compared by the model data.



My research focuses on the lens based telescopes in order to study the systematic effects arisen from these configurations for the W band frequencies (75-110) GHz.

Systematic effects
 *beam shape
 *cross-polarisation

